

RETICLE BARRIER SYSTEM FOR EXTREME ULTRA-VIOLET
LITHOGRAPHY

ABSTRACT OF THE DISCLOSURE

The present invention is directed to a reticle barrier system that prevents contaminants from landing on a mask within lithographic systems using extreme ultra violet light. In particular, a reticle barrier system is provided that consists of a mask barrier and a set of contact barriers. The mask barrier surrounds a mask formed on a reticle, while the contact barriers are affixed between the mask and contact spots on a reticle. The barriers have a height relative to the mask, and different geometries are provided. Collectively, the mask and contact barriers reduce the number of contaminants landing on a mask surface without the use of a pellicle. In an alternate embodiment, the reticle barrier system includes only a mask barrier. Similarly, in another alternate embodiment, the reticle barrier system includes only contact barriers.

141011_1.doc